

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**



(19)

(11) Publication number: **60025157 A**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **58133351**(51) Intl. Cl.: **H01M 6/16**(22) Application date: **20.07.83**

(30) Priority:

(43) Date of application  
publication: **07.02.85**(84) Designated contracting  
states:(71) Applicant: **SANYO ELECTRIC CO LTD**(72) Inventor: **IKEDA KONOSUKE  
YAMASHITA ETSURO  
NAKAJIMA HITOSHI**

(74) Representative:

**(54) NONAQUEOUS  
ELECTROLYTE BATTERY**

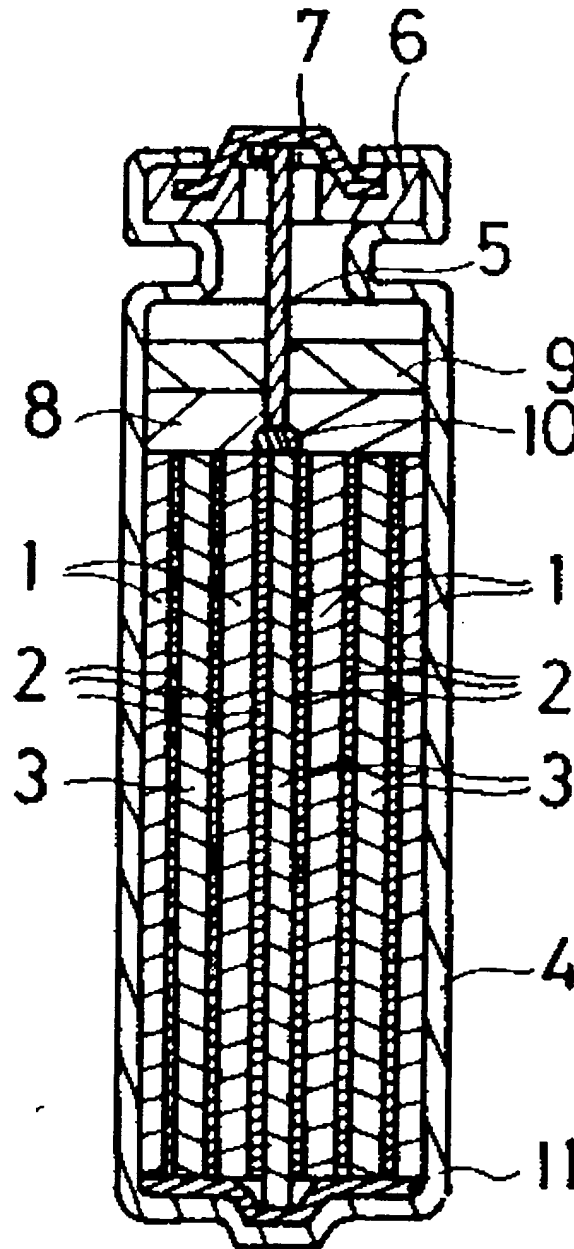
(57) Abstract:

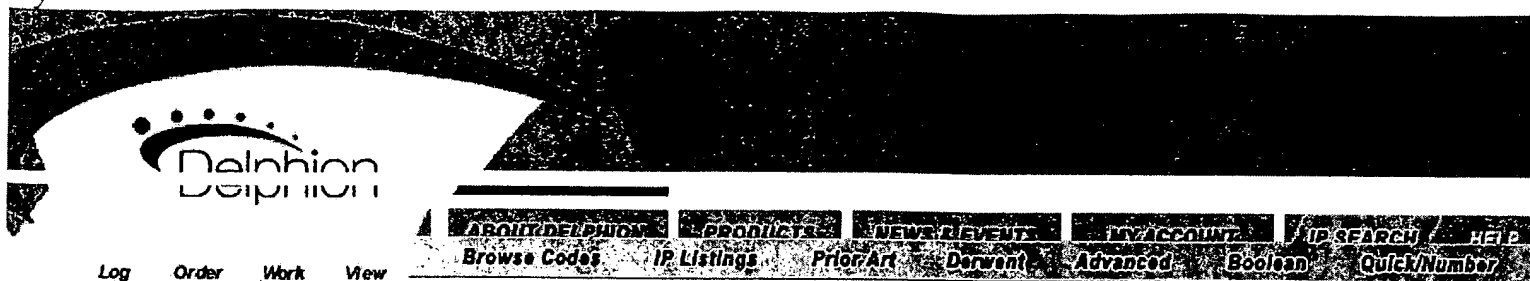
**PURPOSE:** To obtain a nonaqueous electrolyte battery which is safe even under a condition of high temperature by providing the battery with a negative electrode containing a light metal as an active material, a positive electrode corresponding to the negative electrode and a nonaqueous-system electrolyte and adding a high-boiling-point inactive substance which is in a fluid form at over 150° C.

**CONSTITUTION:** A positive electrode 1 consists of manganese dioxide used as an active material, acetylene black used as a conductive agent and polytetrafluoroethylene used as a binding agent. A negative electrode 3 consists of lithium. After the flexible belt-like positive electrode 1, a separator 2 made of a nonwoven polypropylene fabric and the negative electrode 3 are laid one upon another, this is rolled in spiral form before being inserted in a positive exterior can 4 made of a stainless steel. Next, the negative

electrode 3 located in the center of the spiral body is spot-welded through a tab 5 to a negative current collector cap 7 unified with an insulator 6. Electrolyte 8 consists of solution prepared by dissolving lithium perchlorate in propylene carbonate. In such a nonaqueous electrolyte battery, a phase consisting of liquid paraffin 9 used as a high-boiling-point inactive substance which is in liquid form at over 150°C is formed above the electrolyte 8. Owing to the above constitution, any exothermic combustion of the battery can be prevented even when the electrolyte 8 effuses from the battery.

COPYRIGHT: (C)1985,JPO&Japio





The Delphion  
Integrated  
View

Other Views:  
[INPADOC](#)

Title: **JP60025157A2: NONAQUEOUS ELECTROLYTE BATTERY**  
 ► [Want to see a more descriptive title highlighting what's new about this invention?](#)

Country: **JP** Japan  
 Kind: **A** (See also: [JP60025157B4](#))

Inventor(s): **IKEDA KONOSUKE  
 YAMASHITA ETSURO  
 NAKAJIMA HITOSHI**

Applicant/Assignee: **SANYO ELECTRIC CO LTD**  
[News, Profiles, Stocks and More about this company](#)



Issued/Filed Dates: **Feb. 7, 1985 / July 20, 1983**

Application Number: **JP1983000133351**

IPC Class: **H01M 6/16;**

Priority Number(s): **July 20, 1983 [JP1983000133351](#)**

Abstract:

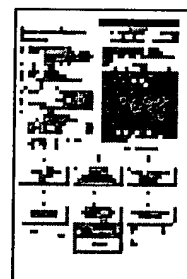


**Purpose:** To obtain a nonaqueous electrolyte battery which is safe even under a condition of high temperature by providing the battery with a negative electrode containing a light metal as an active material, a positive electrode corresponding to the negative electrode and a nonaqueous-system electrolyte and adding a high-boiling-point inactive substance which is in a fluid form at over 150° C.

**Constitution:** A positive electrode 1 consists of manganese dioxide used as an active material, acetylene black used as a conductive agent and polytetrafluoroethylene used as a binding agent. A negative electrode 3 consists of lithium. After the flexible belt-like positive electrode 1, a separator 2 made of a nonwoven polypropylene fabric and the negative electrode 3 are laid one upon another, this is rolled in spiral form before being inserted in a positive exterior can 4 made of a stainless steel. Next, the negative electrode 3 located in the center of the spiral body is spot-welded through a tab 5 to a negative current collector cap 7 unified with an insulator 6. Electrolyte 8 consists of solution prepared by dissolving lithium perchlorate in propylene carbonate. In such a nonaqueous electrolyte battery, a phase consisting of liquid paraffin 9 used as a high-boiling-point inactive substance which is in liquid form at over 150°C is formed above the electrolyte 8. Owing to the above constitution, any exothermic combustion of the battery can be prevented even when the electrolyte 8 effuses from the battery.

COPYRIGHT: (C)1985,JPO&Japio

► [See a clear and precise summary of the whole patent, in understandable terms.](#)



[View  
Image](#)

1 page

Family: [Show known family members](#)

Other Abstract Info: none

Foreign References: No patents reference this one



[Nominate this  
for the Gallery...](#)

---

[Subscribe](#) | [Privacy Policy](#) | [Terms & Conditions](#) | [FAQ](#) | [Site Map](#) | [Help](#) | [Contact Us](#)

© 1997 - 2002 Delphion Inc.